```
COST IN U.S. DOLLARS
                                                    SINCE FILE
                                                                    TOTAL
                                                         ENTRY
                                                                  SESSION
FULL ESTIMATED COST
                                                          0.21
                                                                     0.21
FILE 'EUROPATFULL' ENTERED AT 13:50:37 ON 15 APR 2003
COPYRIGHT (c) 2003 WILA Verlag Muenchen (WILA)
FILE 'PATDPAFULL' ENTERED AT 13:50:37 ON 15 APR 2003
COPYRIGHT (C) 2003 DPMA
FILE 'PCTFULL' ENTERED AT 13:50:37 ON 15 APR 2003
COPYRIGHT (C) 2003 Univentio
FILE 'USPATFULL' ENTERED AT 13:50:37 ON 15 APR 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
FILE 'USPAT2' ENTERED AT 13:50:37 ON 15 APR 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
=> s Saito, Noriaki/in
Ll
             48 SAITO, NORIAKI/IN
=> s novolak resin# and formaldehyde3 and (phenol or ortho-cresol or 0-cresol)
   3 FILES SEARCHED...
              0 NOVOLAK RESIN# AND FORMALDEHYDE3 AND (PHENOL OR ORTHO-CRESOL OR
                0-CRESOL)
=> s novolak resin# and formaldehyde and (phenol or ortho-cresol or o-cresol)
          4266 NOVOLAK RESIN# AND FORMALDEHYDE AND (PHENOL OR ORTHO-CRESOL OR
                O-CRESOL)
=> s 13 and oxalic acid catalyst#
7.4
             48 L3 AND OXALIC ACID CATALYST#
=> s 14 and temperature# and pressure
            17 L4 AND TEMPERATURE# AND PRESSURE
=> s 15 and ortho ratio
L6
             1 L5 AND ORTHO RATIO
=> d
     ANSWER 1 OF 1 USPATFULL
          Citing
References
AN
       2002:172464 USPATFULL
TI
       Method of producing novolak resin
IN
       Saito, Noriaki, Toyonaka-shi, JAPAN
       Aizu, Ichishi, Niihama-shi, JAPAN
       Nakajima, Nobuyuki, Niihama-shi, JAPAN
       Fujiwara, Masahiro, Niihama-shi, JAPAN
       Yano, Koji, Niihama-shi, JAPAN
SUMITOMO CHEMICAL COMPANY, LIMITED (non-U.S. corporation)
PA
       US 2002091224
ΡI
                          A1 20020711
       US 2001-364
JP 2000-377258
                           A1
                                20011204 (10)
PRAI
                            20001212
       JP 2000-377259
                            20001212
       JP 2001-153632
                            20010523
DT
       Utility
FS
       APPLICATION
LN.CNT 579
INCL
       INCLM: 528/129.000
NCL
       NCLM: 528/129.000
TC
       [7]
```

```
TCM: C08G008-04
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

=> d 15 1-17

ANSWER 1 OF 17 EUROPATFULL COPYRIGHT 2003 WILA Full Text

```
PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET
```

```
342035 EUROPATFULL ED 20000917 EW 198946 FS OS STA B
TIEN
       Powdered epoxy resin compositions.
       Pulverfoermige Epoxydharzzusammensetzungen.
TIDE
       Compositions de resines epoxydes sous forme de poudre.
TIFR
       Bymark, Richard M. c/o Minnesota Mining and, Manufacturing Company 3M
TN
       Austin Center, P.O. Box 2963 Austin Texas 78769-2963, US;
       Kirk, Alan R. c/o Minnesota Mining and, Manufacturing Company 2501
       Hudson Road P.O.Box, 33427 St. Paul, Minnesota 55133-3427, US;
       Griggs, Allen L. c/o Minnesota Mining and, Manufacturing Company 2501
       Hudson Road P.O.Box, 33427 St. Paul Minnesota 55133-3427, US;
       Martin, Steven J. c/o Minnesota Mining and, Manufacturing Company 2501
       Hudson Road P.O. Box, 33427 St. Paul, Minnesota 55133-3427, US
       MINNESOTA MINING AND MANUFACTURING COMPANY, P.O. Box 33427, St. Paul
PA
       Minnesota 55133-3427, US
SO
       Wila-EPZ-1989-H46-T1
DS
       R DE; R FR; R GB; R IT
PIT
       EPA2 EUROPAEISCHE PATENTANMELDUNG
       EP 342035
                            A2 19891115
ΡI
\overline{o}\overline{D}
                                19891115
       EP 1989-304781
                                19890511
ΑI
       US 1988-193498
PRAI
                                19880512
       ICM C08G059-62
```

ANSWER 2 OF 17 PCTFULL COPYRIGHT 2003 Univentio

C09D005-00

Text

```
AN
       2002031011 PCTFULL ED 20020515 EW 200216
TTEN
       FRACTIONATION OF RESINS USING A STATIC MIXER AND A LIQUID-LIQUID
       CENTRIFICE
TIFR
       FRACTIONNEMENT DE RESINES AU MOYEN D'UN MELANGEUR FIXE ET D'UNE
```

CENTRIFUGEUSE LIQUIDE-LIQUIDE WANAT, Stanley, F., 3 Frances Lane, Scotch Plains, NJ 07076, US; TN

RAHMAN, M., Dalil, 62 Concord Ridge Road, Flemington, NJ 08822, US; XIANG, Zhong, 1142 Easton Avenue, Apartment G, Somerset, NJ 08873, US CLARIANT INTERNATIONAL LTD, Rothausstrasse 61, CH-4132 Muttenz, CH [CH, PΔ CHl, for JP only;

CLARIANT FINANCE (BVI) LIMITED, Wickhams Cay, P.O. Box 662, Road Town, Tortola, VG [-, -], for all designates States except JP HUeTTER, Klaus, Clariant Service GmbH, Patente, Marken, Lizenzen, Am

AG Unisys-Park 1, 65843 Sulzbach, DE

LAF English ĽА English

DТ Patent ΡI WO 2002031011 A2 20020418

CN JP KR SG RW (EPO): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

WO 2001-EP11357 A 20011002 PRAT US 2000-09/687,137 20001013 US 2000-09/698,724 20001027

TCM C08G008-00

B01D017-038; G03F007-023 TCS

ICS C09D003-58

```
ANSWER 3 OF 17 PCTFULL
                                COPYRIGHT 2003 Univentio
       2000033137 PCTFULL ED 20020515
AN
       PREPARATION OF FRACTIONATED NOVOLAK RESINS BY A NOVEL EXTRACTION
TIEN
       TECHNIQUE
       NOUVELLE TECHNIQUE D'EXTRACTION POUR LA PREPARATION DE RESINES NOVOLAQUE
TIFR
       FRACTIONNEES
       WANAT, Stanley, F.;
RAHMAN, Dalil, M.;
TN
       KOKOSZKA, John, J.;
       NARASIMHAN, Balaji
PA
       CLARIANT INTERNATIONAL LTD.
       English
LA
DΤ
       Patent
PΙ
       WO 2000033137
                              A2 20000608
                    CN JP KR SG AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL
                    PT SE
AΤ
       WO 1999-EP8391
                              A 19991103
       US 1998-09/190,763
PRAT
                                 19981112
ICM
       G03F007-023
ICS
       C08G008-08
     ANSWER 4 OF 17 PCTFULL
                                COPYRIGHT 2003 Univentio
AN
       1999031157 PCTFULL ED 20020515
TIEN
       FRACTIONATED NOVOLAK RESIN AND PHOTORESIST COMPOSITION THEREFROM
       RESINE NOVOLAK FRACTIONNEE ET COMPOSITION DE RESINE PHOTOSENSIBLE
TIFR
       QU'ELLE PERMET D'OBTENIR
       RAHMAN, M., Dalil;
       COOK, Michelle, M.;
       LU, Ping-Hung
       CLARIANT INTERNATIONAL, LTD.
PA
T.A
       English
DT
       Patent
PI
       WO 9931157
                              A1 19990624
                    CN JP KR SG AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL
פת
       w:
                    PT SE
       WO 1998-EP7754
US 1997-08/991,034
AΙ
                              A 19981201
PRAT
                                 19971215
ICM
       C08G008-08
TCS
       G03F007-023
     ANSWER 5 OF 17 USPATFULL
AN
       2003:92961 USPATFULL
TΤ
       Negative photoresist compositions for the formation of thick films,
       photoresist films and methods of forming bumps using the same
       Saito, Koji, Kanagawa, JAPAN
TN
       Misumi, Kouichi, Kanagawa, JAPAN
       Okui, Toshiki, Kanagawa, JAPAN
       Komano, Hiroshi, Kanagawa, JAPAN
TOKYO OHKA KOGYO CO., LTD. (non-U.S. corporation)
PA
ΡI
       US 2003064319
                           Αì
                               20030403
ĀĪ
       US 2002-147984
                                 20020520 (10)
                           A1
PRAI
       JP 2001-151131
                            20010521
       Utility
       APPLICATION
FS
LN.CNT 903
       INCLM: 430/270.100
TNCL
       INCLS: 430/325.000
```

```
NCT.
        NCT.M:
                430/270.100
        NCLS:
                430/325.000
 TC
         [7]
         ICM: G03F007~038
      ANSWER 6 OF 17 USPATFULL
           Oling
References
AN
        2003:86101 USPATFULL
TI
        Positive photoresist composition for the formation of thick films,
        photoresist film and method of forming bumps using the same
 TN
        Misumi, Kouichi, Kanagawa, JAPAN
        Saito, Koji, Kanagawa, JAPAN
        Okui, Toshiki, Kanagawa, JAPAN
        Komano, Hiroshi, Kanagawa, JAPAN
TOKYO OHKA KOGYO CO., LTD. (non-U.S. corporation)
 PA
        US 2003059706
 ΡI
                                    20030327
                              A1
 ΑÏ
        US 2002-90170
                              A1
                                    20020305 (10)
        JP 2001-61565
 PRAI
                               20010306
 DT
        Utility
FS
        APPLICATION
LN.CNT 867
INCL
        INCLM: 430/190.000
        INCLS: 430/189.000; 430/193.000
NCT.
        NCLM:
                430/190.000
        NCLS:
                430/189.000; 430/193.000
TC
        [7]
        ICM: G03C001-52
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      ANSWER 7 OF 17 USPATFULL
    Full
Text
           Citing
References
AΝ
        2003:26414 USPATFULL
TI
        Fractionation of resins using a static mixer and a liquid-liquid
        centrifuge
TN
        Wanat, Stanley F., Scotch Plains, NJ, United States Rahman, M. Dalil, Flemington, NJ, United States
        Xiang, Zhong, Somerset, NJ, United States
Clariant Finance (BVI) Limited, VIRGIN ISLANDS (BRITISH) (non-U.S.
PA
        corporation)
        US 6512087
                              в1
                                   20030128
ĀĪ
        US 2000-698724
                                   20001027 (9)
RLI
        Continuation-in-part of Ser. No. US 2000-687137, filed on 13 Oct 2000
        Utility
FS
        GRANTED
LN.CNT 947
INCL
        INCLM: 528/502.000D
        INCLS: 528/129.000; 528/148.000; 430/192.000; 430/193.000; 210/634.000
       NCLM: 528/502.000D
NCLS: 210/634.000; 430/192.000; 430/193.000; 528/129.000; 528/148.000
NCL
IC
        [7]
        ICM: C08F006-04
        ICS: G03F007-023
EXF
        430/270-1; 430/192; 430/193; 430/325; 430/326; 430/330; 528/148;
        528/129; 528/502D; 210/634
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
1.5
     ANSWER 8 OF 17
                       USPATFULL
    Full
          Cataling
References
   Text
AN
       2002:172464 USPATFULL
ጥፑ
       Method of producing novolak resin
IN
       Saito, Noriaki, Toyonaka-shi, JAPAN
```

```
Aizu, Ichishi, Niihama-shi, JAPAN
        Nakajima, Nobuyuki, Niihama-shi, JAPAN
        Fujiwara, Masahiro, Niihama-shi, JAPAN
        Yano, Koji, Niihama-shi, JAPAN
PA
        SUMITOMO CHEMICAL COMPANY, LIMITED (non-U.S. corporation)
        US 2002091224
                             A1 20020711
PI
        US 2001-364
                                  20011204 (10)
\overline{\mathtt{AI}}
                             A1
PRAI
        JP 2000-377258
                              20001212
        JP 2000-377259
                              20001212
        JP 2001-153632
                              20010523
DT
        Utility
FC
        APPLICATION
LN.CNT 579
        INCLM: 528/129.000
NCLM: 528/129.000
INCL
NCL
TC
        [7]
        ICM: C08G008-04
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 9 OF 17 USPATFULL
           Giling
References
        2000:125188 USPATFULL
        Preparation of fractionated novolak resins by a novel extraction
ጥፕ
        technique
TN
        Wanat, Stanley F., Scotch Plains, NJ, United States Rahman, M. Dalil, Somerville, NJ, United States
        Kokoszka, John J., Warwick, RI, United States
        Narasimhan, Balaji, Highland Park, NJ, United States
PΔ
        Clariant Finance (BVI) Limited, Virgin Islands (British) (non-U.S.
        corporation)
ΡI
        US 6121412
US 1999-418239
                                   20000919
ĀΙ
                                  19991014 (9)
        Continuation-in-part of Ser. No. US 1998-190763, filed on 12 Nov 1998,
RLI
        now abandoned
חיד
        Utility
FS
        Granted
TAL CHT 1037
INCL
        INCLM: 528/502.000D
        INCLS: 528/129.000; 528/144.000; 528/491.000; 430/270.100; 438/455.000;
               438/689.000; 427/352.000; 427/372.200; 210/634.000
NCL
               528/502.000D
        NCLS:
               210/634.000; 427/352.000; 427/372.200; 430/270.100; 438/455.000;
               438/689.000; 528/129.000; 528/144.000; 528/491.000
        [7]
        ICM: C08F006-04
        ICS: C08F006-22; C08G014-04
EXF
        528/502D; 528/129; 528/144; 528/491; 430/270.1; 427/352; 427/372.2;
        210/634; 438/455; 438/689
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 10 OF 17 USPATFULL
    Full
           (Alalina)
   Text
          References
AN
       2000:40811 USPATFULL
TI
        Fractionated novolak resin and photoresist composition therefrom
TN
       Rahman, M. Dalil, Flemington, NJ, United States
       Cook, Michelle, Somerville, NJ, United States
       Lu, Ping-Hung, Bridgewater, NJ, United States
Clariant Finance (BVI) Limited, Virgin Islands (British) (non-U.S.
PA
       corporation)
       US 6045966
                                  20000404
       US 1997-991034
                                  19971215 (8)
       Utility
```

```
FS
        Granted
 LN.CNT 964
 INCL
        INCLM: 430/270.100
        INCLS: 430/311.000; 528/155.000; 528/165.000
 NCT.
        NCLM:
               430/270.100
        NCLS:
              430/311.000; 528/155.000; 528/165.000
 TC
        171
        ICM: G03C005-00
        528/155; 528/165; 430/270.1; 430/311
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      ANSWER 11 OF 17 USPATFULL
             Full
Text
           References
        97:123007 USPATFULL
 AN
TI
        Positive photoresist coating solution comprising a mixed solvent of
        propylene glycol monopropyl ether and 2-heptanone
        Ohno, Hayato, Kanagawa, Japan
        Nakao, Taku, Kanagawa, Japan
        Harada, Hisanobu, Kanagawa, Japan
        Hidesaka, Shinichi, Kanagawa, Japan
        Kohara, Hidekatsu, Kanagawa, Japan
        Nakayama, Toshimasa, Kanagawa, Japan
PA
        Tokyo Ohka Kogyo Co., LTD., Kanagawa, Japan (non-U.S. corporation)
                                19971230
PΙ
        US 5702862
ĀT
        US 1997-797663
JP 1996-40461
                                19970131 (8)
PRAI
                            19960202
        Utility
דת
FS
        Granted
LN.CNT 481
INCL.
        INCLM: 430/191,000
        INCLS: 430/192,000; 430/193,000
NCL
        NCLM:
              430/191.000
       NCLS:
               430/192,000; 430/193,000
TC.
        161
        ICM: G03F007-023
        430/191; 430/192; 430/193
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 12 OF 17 USPATFULL
          Citing
References
   Text
DN
       86:52384 USPATFULL
TI
       Aromatic carboxylic acid and metal-modified phenolic resins and methods
       of preparation
IN
       Ginter, James W., Cheektowaga, NY, United States
       Thorpe, Donald H., Williamsville, NY, United States
       Cooke, Victor F. G., Youngstown, NY, United States
PA
       Occidental Chemical Corporation, Niagara Falls, NY, United States (U.S.
       corporation)
PI
       US 4612254
                                19860916
ĀΙ
       US 1985-709461
                                19850307 (6)
חד
       Utility
FS
       Granted
LN.CNT 1586
INCL
       INCLM: 428/531.000
       INCLS: 346/210.000; 346/211.000; 346/212.000; 346/216.000; 346/217.000;
              346/225.000; 428/327.000; 428/326.000; 524/509.000; 524/510.000;
              524/595.000; 524/596.000; 525/506.000; 525/508.000; 528/139.000;
              528/140.000; 528/144.000; 528/146.000; 528/147.000; 528/148.000
NCL
       NCTM -
              503/210.000
       NCLS:
              428/326.000; 428/327.000; 503/211.000; 503/212.000; 503/216.000;
              503/217.000; 503/225.000; 524/509.000; 524/510.000; 524/595.000;
              524/596.000; 525/506.000; 525/508.000; 528/139.000; 528/140.000;
```

```
528/144.000; 528/146.000; 528/147.000; 528/148.000
IC
        141
        ICM: C08G008-32
        ICS: C08L061-14
        525/506; 525/508; 528/148; 528/139; 528/140; 528/144; 528/146; 528/147;
EXF
        524/596; 524/509; 524/510; 524/595; 346/210; 346/211; 346/212; 346/216;
        346/217; 346/225; 428/327; 428/326; 428/531
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      ANSWER 13 OF 17 USPATFULL
    Full
Text
          Citing
References
AN
        82:27450 USPATFULL
тŢ
        Catechol resins for the shell process
IN
        Craig, Robert S., Hoffman Estates, IL, United States
PA
        Acme Resin Corporation, Englewood Cliffs, NJ, United States (U.S.
        corporation)
ΡI
        US 4333513
                                  19820608
ĀI
        US 1981-240641
                                  19810305 (6)
RLI
        Division of Ser. No. US 1979-90388, filed on 1 Nov 1979, now patented,
        Pat. No. <u>US 4281090</u>, issued on 8 Jul 1981 which is a division of Ser. No. <u>US 1978-869407</u>, filed on 16 Jan 1978, now patented, Pat. No. US
        4206262, issued on 3 Jun 1980
DT
        Utility
FS
        Granted
LN.CNT 296
INCL
        INCLM: 164/526.000
        INCLS: 264/220,000; 264/221,000
NCT.
        NCLM: 164/526.000
        NCLS: 264/220.000; 264/221.000
        [3]
TC
        ICM: B22C001-22
        164/526; 264/220; 264/221; 525/501; 260/38
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 14 OF 17 USPATFULL
          pastana
References
MA
        81:40957 USPATFULL
TI
        Catechol resins for the shell process
IN
        Craig, Robert S., Hoffman Estates, IL, United States
PA
       Acme Resin Corporation, Forest Park, IL, United States (U.S.
        corporation)
       US 4281090
US 1979-90388
                                  19810728
ĀĪ
                                  19791101 (6)
       Division of Ser. No. US 1978-869407, filed on 16 Jan 1978, now patented,
RLI
       Pat. No. US 4206262
DT
       Utility
FS
       Granted
LN.CNT 277
       INCLM: 525/501.000
INCL
       INCLS: 260/038.000
NCL
       NCLM: 525/501.000
       NCLS: 523/145.000; 524/541.000
IC
       131
       ICM: C08L061-12
EXF
       525/495; 525/501; 528/155; 260/DIG.40; 260/38
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 15 OF 17 USPATFULL
   Full
Text
          References
AN
       80:27035 USPATFULL
       Catechol resins for the shell process
```

```
TN
        Craig, Robert S., Hoffman Estates, IL, United States
DΣ
        Acme Resin Corporation, Forest Park, IL, United States (U.S.
        corporation)
      US 4206262
                                 19800603
ΡI
        US 1978-869407
                                 19780116 (5)
쯢
        Utility
FS
        Granted
LN.CNT 290
        INCLM: 428/404.000
TNCT.
        INCLS: 260/038.000; 428/407.000; 164/043.000
        NCLM: 428/404.000
NCT.
        NCLS: 164/021.000; 164/526.000; 428/407.000; 524/448.000
IC
        [2]
        ICM: B32B019-04
        ICS: B32B027-14; B32B027-47
        428/404; 428/407; 428/403; 428/454; 428/524; 260/38; 260/DIG.40; 427/221
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 16 OF 17 USPATFULL
          Clarge
References
   Full
Text
AN
        78:7183 USPATFULL
TI
        Plugging compositions for blast furnace tap holes
       Funabiki, Kyohei, Fujieda, Japan
Tokunaga, Tetsuya, Fujieda, Japan
IN
PA
        Sumitomo Durez Company, Ltd., Tokyo, Japan (non-U.S. corporation)
                                 19780207
       US 4072531
PΙ
ΣĪ
        US 1976-666290
                                 19760312 (5)
       Continuation-in-part of Ser. No. US 1975-639679, filed on 11 Dec 1975,
RLI
       now Defensive Publication No.
PRAI
        JP 1975-30669
                            19750315
       Utility
DT
       Granted
IN. CNT 280
INCL
       INCLM: 106/056.000
       INCLS: 106/055.000; 106/058.000; 106/065.000; 106/067.000; 260/038.000
NCT.
       NCLM:
              523/140.000
               501/099.000; 501/109.000; 501/127.000; 501/128.000; 501/130.000;
       NCLS:
               524/594.000
IC
        [2]
       ICM: C04B035-02
       ICS: C04B035-66; C04B035-04; C04B035-66
EXE
       106/56; 106/67; 106/65; 106/58; 106/55; 260/38
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 17 OF 17 USPATFULL
1.5
AN
       76:42905 USPATFULL
TI
       Process for preparing phenolic filaments
IN
       Koyama, Hiroaki, Osaka, Japan
PΆ
       Nippon Kynol Inc., Osaka, Japan (non-U.S. corporation)
ΡI
       US 3972959
                                 19760803
       US 1974-517029
                                19741022 (5)
ĀΪ
PRAI
       JP 1973-119673
                            19731024
DT
       Utility
ES
       Granted
LN.CNT 741
INCL
       INCLM: 260/841.000
       INCLS: 008/115.500; 260/054.000; 260/055.000; 260/056.000; 260/059.000R;
               260/843.000; 260/847.000; 260/848.000; 264/176.000F; 264/236.000;
               264/347.000
NCL
       NCLM:
               525/429.000
       NCLS: 008/115.560; 264/211.150; 264/211.160; 264/236.000; 264/347.000;
```

525/160.000; 525/164.000; 525/442.000; 528/493.000; 528/496.000

IC [2]

ICM: D06M013-12

ICM: D06M013-12; D06M013-20 EXF 260/59r; 260/841; 264/177F; 264/176F; 264/236; 264/347; 008/115.5 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>